

**Listing of Claims:**

1. (canceled)
2. (previously presented) A method of testing at least one mixed signal semiconductor device, the method comprising:  
  
executing a first test for the at least one mixed signal semiconductor device;  
  
preparing execution of a second test for the at least one mixed signal semiconductor device concurrently with the executing of the first test;  
  
processing test data resulting from the first test; and  
  
executing the second test concurrently with the processing of the test data;  
  
wherein the mixed signal semiconductor testing is performed by a single processor.
3. (previously presented) The method according to claim 2, wherein the executing the first test comprises:  
  
configuring hardware elements corresponding to the first test in a mixed signal semiconductor device tester unit; and  
  
executing one or more test scripts corresponding to the first test, wherein the one or more test scripts include at least one command executable on the processor and the mixed signal semiconductor device tester unit is coupled to the processor.
4. (previously presented) The method according to claim 2, wherein the preparing execution of the second test comprises:  
  
identifying hardware elements corresponding to the second test; and  
  
configuring the hardware elements corresponding to the second test.
5. (previously presented) The method according to claim 2, wherein the first and the second tests are configured for one or more of wafer testing and package testing of the mixed signal semiconductor device.

6. (previously presented) The method according to claim 2, wherein the first and second tests are configured in an interpreted software language.

7. (previously presented) The method according to claim 6, wherein the interpreted software language is Interactive Test Pascal.

8. (previously presented) The method according to claim 2, further comprising:

storing the test data resulting from the first test in a first information storage, wherein the first information storage is shared by a plurality of software computation modules concurrently executing on the processor.

9. (previously presented) The method according to claim 8, wherein the plurality of software computation modules are configured in at least one compiled software language.

10. (previously presented) The method according to claim 8, further comprising:

storing results of the processing of the test data in a second information storage, wherein the second information storage is shared by the plurality of software computation modules.

11. (previously presented) The method according to claim 10, wherein the first and second information storage are configured in a single storage unit.

12. (previously presented) An apparatus for testing at least one mixed signal semiconductor device comprising:

a device interface unit adapted to communicate with a device under test;

a device testing unit adapted to communicate with the device interface unit and a control unit;

the control unit including at least one processor, an operating system, and computational modules;

wherein the processor is configured to:

execute a first test for the at least one mixed signal semiconductor device;

prepare execution of a second test for the at least one mixed signal semiconductor device concurrently with the executing of the first test; and

execute the second test; and

wherein the computational modules are configured to process the test data from the first test concurrently with the processor executing the second test.

13. (previously presented) The apparatus according to claim 12, wherein the device tester unit comprises a plurality of hardware modules for testing the at least one mixed signal semiconductor device.

14-15. (canceled)

16. (previously presented) The apparatus according to claim 12, wherein the processor is further configured to configure hardware elements corresponding to the first test in the mixed signal semiconductor device tester unit; and to execute one or more test scripts corresponding to the first test, wherein the one or more test scripts include at least one command executable on the processor and the mixed signal semiconductor device tester unit is coupled to the processor.

17. (previously presented) The apparatus according to claim 12, wherein the processor is further configured to identify hardware elements corresponding

to the second test; and configure the hardware elements corresponding to the second test.

18 - 20. (canceled)

21. (previously presented) The apparatus according to claim 12, further comprising:

a first information storage coupled to the processor, wherein the processor is further configured to store the test data resulting from the first test in the first information storage, wherein the first information storage is shared by a plurality of software computation modules concurrently executing on the processor.

22. (previously presented) The apparatus according to claim 21, wherein the plurality of software computation modules are configured in at least one compiled software language.

23. (previously presented) The apparatus according to claim 21, further comprising:

a second information storage coupled to the processor, wherein the processor is further configured to store results of the processing of the test data in a second information storage, wherein the second information storage is shared by the plurality of software computation modules.

24. (previously presented) The apparatus according to claim 23, wherein the first and second information storage are configured in a single storage unit.

25. (canceled)

26. (previously presented) A computer program product comprising a set of instructions configured to enable a mixed signal semiconductor device test system to

execute a first test for at least one mixed signal semiconductor device;

prepare execution of a second test for the at least one mixed signal semiconductor device concurrently with the executing of the first test;

- process test data resulting from the first test; and
- execute the second test concurrently with the processing of the test data;  
wherein the set of instructions are executed on a single processor.
27. (previously presented) The computer program product according to claim 26, wherein the set of instructions are further configured to
- configure hardware elements corresponding to the first test in a mixed signal semiconductor device tester unit; and
- execute one or more test scripts corresponding to the first test, wherein the one or more test scripts include at least one command executable on the processor and the mixed signal semiconductor device tester unit is coupled to the processor.
28. (previously presented) The computer program product according to claim 26, wherein the set of instructions are further configured to identify hardware elements corresponding to the second test; and configure the hardware elements corresponding to the second test.
29. (previously presented) The computer program product according to claim 26, wherein the first and the second tests are configured for one or more of wafer testing and package testing of the mixed signal semiconductor device.
30. (previously presented) The computer program product according to claim 26, wherein the set of instructions are configured in an interpreted software language.
31. (previously presented) The computer program product according to claim 30, wherein the interpreted software language is Interactive Test Pascal.
32. (previously presented) The computer program product according to claim 26, wherein the set of instructions are further configured to store the test data resulting from the first test in a first information storage, wherein the first information storage is shared by a plurality of software computation modules concurrently executing on the processor.

33. (previously presented) The computer program product according to claim 32, wherein the plurality of software computation modules are configured in at least one compiled software language.

34. (previously presented) The computer program product according to claim 32, wherein the set of instructions are further configured to store results of the processing of the test data in a second information storage, wherein the second information storage is shared by the plurality of software computation modules.